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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/820,293

04/08/2004

Teruaki Kasai

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EXAMINER

OSELE, MARK A

ART UNIT

PAPER NUMBER

1734

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/22/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/820,293

Applicant(s)

KASAI, TERUAKI

Examiner

Mark A. Osele

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Upon further consideration, the subject matter indicated as being allowable in the office action of September 20, 2006 was determined to be unsupported by the originally filed disclosure.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 5 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 7,060,593 (Kurosawa et al. '593). It is noted that the U.S. Patent Publication 2003/0060021 (Kurosawa et al. '021) has the same disclosure as 7,060,593 and is prior art under 35 U.S.C. 102(a). For purposes of clarity, the citations to Kurosawa et al. will be to the U.S. Patent (Kurosawa et al. '593).

Kurosawa et al. shows a method and apparatus for removing semiconductor dies from an adhesive sheet comprising, in order: bringing suction members, 44-1, 44-2, 44-

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3...44-7, into contact with the lower surface, 42-2, of the sheet, 41, and sucking the sheet so that the deformation of the chip, 1, held on the sheet is reformed; recognizing the chip by capturing an image of the chip held on the sheet with a camera, 4; positioning the chip to be picked up relatively to the pick-up head, 10, on the basis of the recognition result; separating the sheet from the chip by sucking the sheet from sucking grooves with boundary zones, 45, kept in contact with a lower surface of the sheet; and a holding step of holding an upper surface of the chip separated from the sheet using the pick-up head (Figs. 45, 46A, 46B, 46C, 47A, 47B; column 17, line 22 to column 18, line 29, column 18, lines 38-57).

4. Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent Publication 10-163133 (Seiichi). Seiichi shows a method and apparatus for removing semiconductor dies from an adhesive sheet comprising, in order: bringing suction members, 102, into contact with the lower surface of the sheet, 106, and sucking the sheet so that the deformation of the chip, 105, held on the sheet is reformed; recognizing the chip by capturing an image of the chip held on the sheet with a camera, 111; positioning the chip to be picked up relatively to the pick-up head, 110, on the basis of the recognition result; separating the sheet from the chip by sucking the sheet from sucking grooves, 4, with boundary zones, 103, kept in contact with a lower surface of the sheet; and a holding step of holding an upper surface of the chip separated from the sheet using the pick-up head (Figs. 9A, 9B, 10A, 10B, English Abstract).

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 3, 4, and 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not enable one of ordinary skill in the art to perform the method wherein the sheet separating step is implemented where the "suction members have left the lower surface of said sheet." In the specification and drawings, the suction members never leave the lower surface of the sheet as they pull the sheet with them as they descend.

Allowable Subject Matter

7. The following is a statement of reasons for the indication of allowable subject matter: The method claims 3, 4, and 6 would be allowable if the language were amended to indicate that the suction members leave the suction plane rather than the lower surface of the sheet. Applicant is advised that the suction plane should also be defined in the claims.

Response to Arguments

8. Applicant's arguments filed November 30, 2006 have been fully considered but they are not persuasive. Regarding apparatus claim 5, method of use limitations are not given patentable weight in an apparatus claim. As indicated above, the method claims have been reconsidered and upon further consideration, the current claim language is unsupported by the specification.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A. Osele whose telephone number is 571-272-1235. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Fiorilla can be reached on 571-272-1187. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



MARK A. OSELE
PRIMARY EXAMINER

February 20, 2007